

CLAIMS

1. In a communication system supporting Internet Protocol (IP)
2 communications, a method comprising:
identifying a loss of a bearer connection for an IP communication;
4 providing a notification of the loss of bearer connection; and
terminating the IP communication.
2. The method as in claim 1, wherein the IP communication is a voice
2 communication.
3. The method as in claim 1, wherein the bearer connection includes a
2 Point-to-Point Protocol (PPP) session, and wherein providing a notification of
the loss of bearer connection further comprises:
4 receiving a notification from a packet data service node within the
communication system;
6 duplicating the notification to form at least one notification duplicate; and
sending one of the at least one notification duplicates to a session control
8 manager within the communication system.
4. The method as in claim 3, further comprising:
2 receiving an acknowledge message from the session control manager;
duplicating the acknowledge message to form at least one acknowledge
4 duplicate; and
sending one of the at least one acknowledge duplicates to the packet
6 data service node.
5. The method as in claim 4, further comprising:
2 sending another one of the at least one notification duplicates to a
second session control manager; and

- 4 sending another one of the at least one acknowledge duplicates to the
 second session control manager.
6. The method as in claim 5, wherein the session control manager supports
2 the PPP session.
7. The method as in claim 6, wherein the second session control manager is
2 inactive with respect to the PPP session.
8. The method as in claim 1, wherein the IP communication uses a Session
2 Initiation Protocol (SIP), and wherein terminating the IP communication
 comprises generating a BYE message.
9. In a communication system supporting Internet Protocol (IP)
2 communications, a method comprising:
 initiating a first Point-to-Point Protocol (PPP) session for an IP
4 communication;
 initiating a second PPP session for the IP communication;
6 receiving a notification of the loss of the first PPP session;
 receiving a correction to ignore the notification; and
8 ignoring the notification.
10. The method as in claim 9, wherein providing a notification of the loss of
2 first PPP connection further comprises:
 receiving a notification from a first packet data service node within the
4 communication system;
 duplicating the notification to form at least one notification duplicate; and
6 sending one of the at least one notification duplicates to a session control
 manager within the communication system.
11. The method as in claim 10, further comprising:
2 receiving a correction message from a second packet data service node;
 duplicating the correction message to form at least one correction
4 duplicate; and

- 6 sending one of the at least one correction duplicates to the packet data
 service node.
12. The method as in claim 11, further comprising:
2 sending another one of the at least one correction duplicates to a second
 session control manager.
13. The method as in claim 12, wherein the session control manager
2 supports the PPP session.
14. The method as in claim 13, wherein the second session control manager
2 is inactive with respect to the PPP session.
15. The method as in claim 14, further comprising:
2 receiving a negative acknowledge from the session control manager;
 duplicating the negative acknowledge to form at least one negative
4 acknowledge duplicate; and
 sending one of the at least one negative acknowledge duplicates to the
6 second session control manager.
16. In a communication system supporting Internet Protocol (IP)
2 communications, an infrastructure element comprising:
 means for identifying a loss of a bearer connection for an IP
4 communication;
 means for providing a notification of the loss of bearer connection; and
6 means for terminating the IP communication.
17. In a communication system supporting Internet Protocol (IP)
2 communications, a method comprising:
 initiating a first Point-to-Point Protocol (PPP) session for an IP
4 communication;
 initiating a second PPP session for the IP communication;
6 receiving a notification of the loss of the first PPP session;
 receiving a correction to ignore the notification; and

8 ignoring the notification.

18. In a communication system supporting Internet Protocol (IP)

2 communications, the communication system employing an accounting unit, a
method comprising:

4 receiving a request to stop accounting for a first IP communication the
request to stop accounting corresponding to loss of a first Point-to-
6 Point Protocol (PPP) session;

8 if a second PPP session is active for the IP communication, ignoring the
request to stop accounting; and

10 if the first PPP session is the only active PPP session for the first IP
communication, terminating the IP communication.

19. The method as in claim 18, wherein a request to start accounting initiates
2 an active PPP session.

20. The method as in claim 19, wherein the system supports Diameter Protocol
2 communications.

21. In a communication system supporting Internet Protocol (IP)

2 communications, an apparatus comprising:

4 means for receiving a request to stop accounting for a first IP
communication the request to stop accounting corresponding to
loss of a first Point-to-Point Protocol (PPP) session;

6 means for ignoring the request to stop accounting if a second PPP
session is active for the IP communication; and

8 means for terminating the IP communication if the first PPP session is
the only active PPP session for the first IP communication.

22. The apparatus as in claim 21, wherein the apparatus is an Authentication
2 Authorization Accounting (AAA) server.

23. The apparatus as in claim 21, further comprising:

2 means for generating Diameter Protocol requests, wherein the Diameter
Protocol requests include a notification of loss of the first PPP
4 session; and
means for receiving Diameter Protocol answers.

24. In a communication system supporting Internet Protocol (IP)
2 communications, a method comprising:
receiving a request to stop accounting for a first Point-to-Point Protocol
4 (PPP) session of an IP communication; and
sending notification of the request to stop accounting to a session control
6 manager supporting the first PPP session.

25. The method as in claim 24, further comprising:
2 terminating the IP communication.

26. The method as in claim 25, wherein the IP communication uses a
2 Session Initiation Protocol (SIP), and wherein terminating the IP
communication comprises sending a BYE message.

27. In a communication system supporting Internet Protocol (IP)
2 communications, an apparatus comprising:
means for receiving a request to stop accounting for a first Point-to-Point
4 Protocol (PPP) session of an IP communication; and
means for sending notification of the request to stop accounting to a
6 session control manager supporting the first PPP session.

28. A data processing apparatus, comprising:
2 memory storage element; and
processor means adapted to:
4 receive a request to stop accounting for a first IP communication
the request to stop accounting corresponding to loss of a
6 first Point-to-Point Protocol (PPP) session;

8 ignore the request to stop accounting if a second PPP session is
active for the IP communication; and
10 terminate the IP communication if the first PPP session is the only
active PPP session for the first IP communication.

29. A computer program comprising:

2 Instructions for receiving a request to stop accounting for a first IP
communication the request to stop accounting
4 corresponding to loss of a first Point-to-Point Protocol (PPP)
session;
6 instructions for ignoring the request to stop accounting if a second
PPP session is active for the IP communication; and
8 instructions for terminating the IP communication if the first PPP
session is the only active PPP session for the first IP
10 communication.